

**CALIFORNIA ALTERNATIVE ENERGY AND
ADVANCED TRANSPORTATION FINANCING AUTHORITY**
Meeting Date: September 27, 2011

***Request to Approve Executive Director’s Recommendations for Specific Parameters under the
SB 71 Advanced Transportation and Alternative Source Manufacturing Sales and Use Tax
Exclusion Program***

Prepared By: *Cheryl Ide and Matthew Newman (Blue Sky Consulting Group)*

Summary. The regulations for the SB 71 ***Advanced Transportation and Alternative Source Manufacturing*** Sales and Use Tax Exclusion Program (“SB 71 Program”) contain several provisions that require the Executive Director of the California Alternative Energy and Advanced Transportation Financing Authority (CAEATFA) to determine various parameters for approval by the Authority to be used when evaluating applications for the SB 71 Program.

In addition to the adoption of these determined values, these parameters can be recommended by the Executive Director and presented to the Board for approval when the Executive Director determines that an adjustment of parameter(s) will further advance the goals of the SB 71 Program, is required by the regulations, or is otherwise required to improve the accuracy of Application evaluations. The ability to adjust parameters provides CAEATFA with an important tool to respond to the dynamic nature of the technologies and industries served by the SB 71 Program.

In the future, the regulations to be enacted on September 28, 2011 delegate to the Executive Director the authority to modify the parameters as needed; the Executive Director will report to the Board accordingly when parameters are updated.

Staff recommends that the CAEATFA Board approve the Executive Director’s recommendations for specific parameters regarding evaluation criteria, as set forth below.

Background. In order to evaluate the fiscal and environmental benefits of an application, the evaluation criteria embodied in the SB 71 Program regulations rely on a number of specific values and parameters that the Executive Director must recommend to the Board for approval. The Executive Director will determine the most accurate and appropriate value for each parameter. These parameters are based on relevant research literature, consultation with professional economists or outside experts, information provided by other State agencies, and data provided by the public.

The Blue Sky Consulting Group provided significant input into the selection of the parameters and their initial values, these proposed modifications, and the integration of parameters into the net benefits evaluation.

The Board approved the SB 71 Program’s initial parameters on September 22, 2010. This is the first recommended update to the parameters.

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The following is a list of the specific parameters that the Executive Director is recommending to the Board for approval (see Attachment A for justifications provided for each of the proposed parameters made to date):

- Current Statewide Average Sales Tax Rate
- Price Elasticity of Demand for Output
- Elasticity of Substitution Between Capital & Labor
- Average Cost of Employee Benefits
- Average Applicant Cost of Capital
- Appropriate Discount Rate for Fiscal and Environmental Effects
- Economic Multiplier
- Average State Income Tax Rate
- Applicable Local Property Tax Rate
- Ratio of State and Local Government Revenues to Gross State Output
- Pollution Cost Per Unit (Gallon of Gas Equivalent or Megawatt hour of electricity) of Volatile Organic Compounds (VOCs), Nitrous Oxide (NOx) and Carbon Dioxide (CO₂) Released in California and the rest of the United States
- List of Emerging Green Industries
- Current Annual Average Unemployment Rate for the State and Counties

Staff Recommendation. Staff recommends the CAEATFA Board approve the Executive Director's proposed parameters set forth in the SB 71 Program regulations.

**RESOLUTION OF THE CALIFORNIA ALTERNATIVE ENERGY AND ADVANCED
TRANSPORTATION FINANCING AUTHORITY APPROVING THE PARAMETERS
RECOMMENDED BY THE EXECUTIVE DIRECTOR AND FOUND WITHIN THE
REGULATIONS**

September 27, 2011

WHEREAS, the California Alternative Energy and Advanced Transportation Financing Authority (the "Authority") is authorized by California Public Resources Code Section 26011.8 to make every effort to expedite the operation of the Advanced Transportation and Alternative Source Manufacturing Sales and Use Tax Exclusion Program (SB 71 Program); and

WHEREAS, the Authority has determined that the parameters used in calculating the net benefits set forth throughout the regulations, and as authorized in Section 26011.8 of the Public Resources Code, are necessary to be adopted at this time to administer the SB 71 Program.

NOW, THEREFORE, BE IT RESOLVED by the California Alternative Energy and Advanced Transportation Financing Authority as follows:

Section 1. The parameters recommended by the Executive Director are hereby approved.

Section 2. This resolution shall take effect immediately upon its approval.

Attachment A

EXECUTIVE DIRECTOR RECOMMENDATIONS FOR EVALUATION CRITERIA

Emerging Green Industries (§10031.H.): No specific recommendation at this time.

Discount Rate (§10033.C.): 6.3%, based on the state's cost of borrowing as reflected by the yield on a bond with a medium-term maturity pursuant to the most recent General Obligation bond issuance, adjusted to reflect an equivalent taxable yield.

Price Elasticity of Demand for Output, η (§10033.c.1.A.): -3, based on analysis of state data prepared by Robert Chirinko and Daniel Wilson and presented in “State Business Taxes and Investment: State-by-State Simulations.”

Elasticity of Substitution Between Capital & Labor, σ (§10033.c.1.A.): -0.71, based on analysis of state data prepared by Robert Chirinko and Daniel Wilson and presented in “State Business Taxes and Investment: State-by-State Simulations.”

Average Cost of Employee Benefits, EB (§10033.c.1.A.i.): 30.3%, based on analysis prepared by the Employee Benefit Research Institute, “Chapter 3: Employer Costs for Employee Compensation,” EBRI Databook on Employee Benefits, Updated June 2011 using data from the Bureau of Labor Statistics.

Average Applicant Cost of Capital, $\$CAP$ (§10033.c.1.A.i.): 12%, based on the average weighted average cost of capital for previous applicants and a group of similar companies as calculated by the Blue Sky Consulting Group

Multiplier (§10033.C.1.v.): 2.0, based on economic input-out data and multipliers developed by the Minnesota Implan Group.

Current Statewide Average Sales Tax Rate, STR (§10033.C.1.iv.1.a.): 8.11%, based on information collected by the California State Board of Equalization.

Average State Income Tax Rate, SIR (§10033.C.1.vi.1.b.): 4.62%, based on the most recent two-year average of personal income tax rates published by the California Franchise Tax Board.

Current Property Tax Rate, PRT (§10033.C.1. vi.1.d.i.): rates in table below, based on the latest annual average tax rate from the Board of Equalization.

County	2008-09 Rate
Alameda	1.189%
Alpine	1.000%
Amador	1.015%
Butte	1.064%
Calaveras	1.075%
Colusa	1.027%
Contra Costa	1.108%

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Del Norte	1.039%
El Dorado	1.055%
Fresno	1.165%
Glenn	1.050%
Humboldt	1.055%
Imperial	1.052%
Inyo	1.052%
Kern	1.114%
Kings	1.075%
Lake	1.068%
Lassen	1.024%
Los Angeles	1.168%
Madera	1.118%
Marin	1.105%
Mariposa	1.005%
Mendocino	1.097%
Merced	1.061%
Modoc	1.000%
Mono	1.073%
Monterey	1.084%
Napa	1.093%
Nevada	1.033%
Orange	1.054%
Placer	1.063%
Plumas	1.038%
Riverside	1.089%
Sacramento	1.087%
San Benito	1.142%
San Bernardino	1.134%
San Diego	1.076%
San Francisco	1.160%
San Joaquin	1.113%
San Luis Obispo	1.039%
San Mateo	1.085%
Santa Barbara	1.055%
Santa Clara	1.181%
Santa Cruz	1.093%
Shasta	1.085%
Sierra	1.033%
Siskiyou	1.038%
Solano	1.121%
Sonoma	1.115%
Stanislaus	1.093%
Sutter	1.070%
Tehama	1.022%
Trinity	1.013%
Tulare	1.088%
Tuolumne	1.042%
Ventura	1.082%
Yolo	1.054%
Yuba	1.102%

Ratio of State and Local Government Revenues to Gross State Output, GRSO

(§10033.C.1.vi.2.a.): 6.30%, based on the sum of the latest two-year average of actual state general fund revenues from the California Department of Finance, the latest two-year average of actual aggregate city and county revenues excluding intergovernmental transfers and service charges from the cities annual report and the counties annual report from the California State Controller’s Office, divided by the latest two-year average of gross state product from U.S. Department of Commerce’s Bureau of Economic Analysis.

Gallon of Gasoline Equivalent (GGE) Pollution Cost Per Unit of Volatile Organic Compounds (VOCs), Nitrous Oxide (NOx) and Carbon Dioxide (CO2) (§10033.C.2.ii.1. and §10033.C.5.vi.1.i.):

\$0.00188/gallon for VOC and NOx combined and \$0.12028/gallon for CO2, based on benefit values and emission values from the relevant research literature. Benefit values for VOC and NOx from Muller & Mendelson’s “Efficient Pollution Regulation: Getting the Prices Right” while CO2 values are from Tol’s “The Marginal Damage Costs of Carbon Dioxide Emissions: An Assessment of the Uncertainties.” Emission values for VOC and NOx are from the California Air Resources Board Low-Emission Vehicle Regulations while CO2 values are from the Federal Environmental Protection Agency.

MWh Pollution Cost Per Unit of Carbon Dioxide, Nitrous Oxide and Sulfur Dioxide Released in California and the rest of the United States (§10033.C.2.ii.2. and §10033.C.5.vi.1.ii.):

rates in table below, based on benefit values and emission values from the relevant research literature. Benefit values for SO2 and NOx are from Muller & Mendelson’s “Efficient Pollution Regulation: Getting the Prices Right” while CO2 values are from Tol’s “The Marginal Damage Costs of Carbon Dioxide Emissions: An Assessment of the Uncertainties.” Emissions values for SO2, NOx, and CO2 are from the Federal Environmental Protection Agency.

<i>Pollutant</i>	<i>California</i>	<i>Rest of the US</i>
NOx	\$ 0.34	\$ 2.06
SO2	\$ 0.13	\$ 5.48
CO2	\$ 700.4	\$ 1,316.9

Current Annual Average Unemployment Rate for the State and Counties (§10033.C.5.i.): 12.4% for the state (county rates in table below), based on the most recent annual data from the Employment Development Department.

<i>County</i>	<i>2009 Rate</i>
ALAMEDA	10.92%
ALPINE	16.13%
AMADOR	13.09%
BUTTE	13.75%
CALAVERAS	15.47%
COLUSA	20.82%
CONTRA COSTA	10.96%
DEL NORTE	13.53%
EL DORADO	12.43%
FRESNO	16.86%
GLENN	16.56%

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HUMBOLDT	11.39%
IMPERIAL	29.78%
INYO	10.07%
KERN	15.74%
KINGS	16.52%
LAKE	18.21%
LASSEN	13.88%
LOS ANGELES	12.54%
MADERA	15.53%
MARIN	8.03%
MARIPOSA	12.48%
MENDOCINO	11.33%
MERCED	18.85%
MODOC	14.34%
MONO	10.42%
MONTEREY	12.92%
NAPA	9.71%
NEVADA	11.28%
ORANGE	9.15%
PLACER	11.29%
PLUMAS	16.27%
RIVERSIDE	14.41%
SACRAMENTO	12.64%
SAN BENITO	17.05%
SAN BERNARDINO	13.89%
SAN DIEGO	10.28%
SAN FRANCISCO	9.13%
SAN JOAQUIN	17.31%
SAN LUIS OBISPO	9.90%
SAN MATEO	8.43%
SANTA BARBARA	9.18%
SANTA CLARA	10.43%
SANTA CRUZ	12.52%
SHASTA	15.63%
SIERRA	16.03%
SISKIYOU	17.87%
SOLANO	11.92%
SONOMA	10.13%
STANISLAUS	17.18%
SUTTER	19.83%
TEHAMA	15.66%
TRINITY	18.48%
TULARE	16.63%
TUOLUMNE	13.77%
VENTURA	10.53%
YOLO	13.03%
YUBA	18.82%

